

CLAIMS:

1. A light-guiding device having a coupling-in surface for coupling-in light radiation substantially in a first main direction perpendicular to said coupling-in surface, and having a coupling-out surface for coupling-out light radiation substantially in a second main direction perpendicular to said coupling-out surface, wherein the coupling-out surface has dimensions other than those of the coupling-in surface, characterized in that the device comprises a number of plate-like light-guiding members, each having a substantial rectangular lateral coupling-in surface and a substantially rectangular lateral coupling-out surface, wherein a number of the plate-like light-guiding members are stacked together so as to create the coupling-in surface formed by said lateral coupling-in surfaces abutting each other at their long sides, and wherein the coupling-out surface is created by said lateral coupling-out surfaces abutting each other at their short sides.
2. A light-guiding device as claimed in claim 1, characterized in that the coupling-in surface has a substantially rectangular shape whose long side is less than five times longer than the short side, and the coupling-out surface has an oblong shape having a length of more than five times, preferably more than ten times, the length of said long side.
3. A light-guiding device as claimed in any one of the preceding claims, characterized in that each of the plate-like light-guiding members is provided with a lateral reflecting outer surface for reflecting the light radiation, which lateral reflecting outer surface is positioned at an angle to said first main direction and which reflecting outer surface directs the light radiation substantially in the second main direction towards the coupling-out surface.
4. A light-guiding device as claimed claim 3, characterized in that the angle between said reflecting outer surface and said first main direction is between 15° and 55°, preferably between 35° and 45°, more preferably about 40°.

5. A light-guiding device as claimed in any one of the preceding claims, characterized in that the cross-sectional area - perpendicular to said first main direction - of each plate-like light-guiding member increases in the first main direction.

5 6. A light-guiding device as claimed in claim 5, characterized in that the increase in the cross-sectional area starts at the lateral coupling-in surface.

7. A light-guiding device as claimed in any one of the preceding claims, characterized in that portions of the plate-like light-guiding members make optical contact,
10 and are preferably glued together with optical glue, near the coupling-in surface.

8. A light-guiding device as claimed in any one of the preceding claims, characterized in that the thickness of the plate-like light-guiding members near the coupling-out surface increases in the second main direction.

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9. A light-guiding device as claimed in any one of the preceding claims, characterized in that the portions of the plate-like light-guiding members near said coupling-in surface extend in different, substantially parallel planes, while the portions of the plate-like light-guiding members near said coupling-out surface extend in substantially the same plane.

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10. A method of guiding light through a light-guiding device wherein light radiation is coupled in substantially in a first main direction perpendicular to the coupling-in surface, wherein light radiation is coupled out substantially in a second main direction perpendicular to the coupling-out surface, which coupling-out surface has dimensions other
25 than those of the coupling-in surface, characterized in that the light radiation is guided by a number of plate-like light-guiding members, each having a substantially rectangular lateral coupling-in surface and a substantially rectangular lateral coupling-out surface, wherein a number of the plate-like light-guiding members are stacked together so as to create the coupling-in surface formed by said lateral coupling-in surfaces abutting each other at their
30 long sides, and wherein the coupling-out surface is created by said lateral coupling-out surfaces abutting each other at their short sides.